DEC 5 1987

GA 1.13: RCED-85-88

BY THE U.S. GENERAL ACCOUNTING OFFICE

Report To The Chairman, Committee On Interior And Insular Affairs House Of Representatives

COMPLETED

Issues Surrounding Continuation Of The Noncompetitive Oil And Gas Lottery System

The Bureau of Land Management is responsible for the leasing of oil and gas mineral rights on over 300 million acres of public lands. Under the Mineral Leasing Act of 1920, lands with known oil and gas deposits are leased competitively. However, much more federal land is leased through a noncompetitive lottery system, which generates substantial receipts for the federal Treasury--about $250 million in filing fees for the 5-year period 1980-1984.

The lottery system has been criticized since its 1959 inception for encouraging fraud, misleading the public, and generating insufficient revenues. On October 12, 1983, the program was suspended for 10 months because of recognized weaknesses in the system. This report highlights major issues surrounding the lottery program.

GAO/RCED-85-88
APRIL 4, 1985

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RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
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B-215975

The Honorable Morris K. Udall
Chairman, Committee on Interior
and Insular Affairs
House of Representatives

Dear Mr. Chairman:

This report responds to your letter of October 24, 1983, which asked a series of questions (appendix I) on the adequacy of the Department of the Interior's administration of the onshore oil and gas simultaneous leasing system, commonly referred to as the "lottery." In essence, you asked us to review problems with the lottery system and Interior's ability to correct them.

The Mineral Leasing Act of 1920 provides generally that federal oil and gas rights on United States lands "within any known geological structure of a producing oil and gas field" must be leased competitively to the highest bidder; all such rights on other lands covered by the act must be leased noncompetitively. Most noncompetitive leases are issued under the lottery system, in which the lessee is randomly selected from a number of applicants, all of whom submit a nonrefundable filing fee of $75 per lease.

Onshore oil and gas leasing on public lands is a large operation. At the beginning of 1984, there were about 134,000 federal onshore oil and gas leases covering about 164 million acres. Of these, about 15,000 leases were either producing or capable of producing oil and gas, generating nearly $1 billion in federal revenue annually in royalty payments. The lottery represents a significant proportion of the total program, accounting for 60 percent of the leases issued in 1983 and generating over $250 million in filing fee receipts over the last 5 years.

Although a major source of receipts, and the primary means of leasing onshore lands, the lottery system has periodically been criticized for (1) not generating enough revenues for the oil and gas rights leased to ensure fair market value that might otherwise be obtainable through competitive leasing and (2) allegedly encouraging fraud by applicants, or enabling some filing service firms to misinform and encourage speculation by the general public

to use their services to apply for leases of little value. These criticisms resurfaced in 1983 when it was reported in the news media that valuable parcels of productive land in the Amos Draw area of Wyoming that had been leased noncompetitively should have been leased competitively. This occurrence highlighted weaknesses in the lottery system, causing its suspension by Interior in October 1983 and prompting your request.

Our detailed responses to the 10 sets of questions you asked and a detailed description of work performed are included in appendixes II through VI to this letter and are summarized below. In general, we examined the adequacy of the Bureau of Land Management's procedures for identifying lands within a known geological structure and assuring that they are leased competitively; the frequency and effect of any questionable noncompetitive leasing[1] caused by inadequate procedures; and the adequacy of Interior's attempts to correct procedural deficiencies in the system. We also are providing our views on the need for legislation in this area.

Our work was conducted from November 1983 to December 1984 in accordance with generally accepted government auditing standards, and the scope and methodology were coordinated with members of your staff. We focused our efforts primarily on Bureau of Land Management (BLM) offices in five major oil- and gas-producing states--Colorado, Montana, New Mexico, Utah, and Wyoming. These states have nearly 70 percent of the active federal leases and over 85 percent of the producing or producible federal leases. We also reviewed the relevant legislative history, federal regulations and instructions, and court cases, particularly the case concerning the leasing of military lands at Fort Chaffee, Arkansas.[2] With respect to fraud and other abuse issues, we relied primarily on the work of the Department of the Interior's Office of Inspector General, which conducted an investigation of the leases issued at Amos Draw, and has other investigations and audits in process. Also, we are aware, but did not review the results, of other investigations--either underway or not formally released--by the House Appropriations Committee, the U.S. Attorney's office in Wyoming, and various state governments.

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[1]Throughout our report, the term "questionable leases" refers to those leases that probably would have been issued competitively had available geologic data been obtained and used in setting boundaries for competitive leasing.

[2]In 1976, acquired military lands were legislatively opened to mineral leasing. As a result, in 1979, 33,000 acres within Fort Chaffee were leased noncompetitively. Because they were located close to producing oil and gas wells, the leases were contested, and the matter was in the courts until early 1985.

We did not obtain official agency comments on a draft of this report. We did, however, discuss the results of our work with agency officials and have incorporated their remarks where appropriate. Our scope and methodology are discussed in greater detail in appendix II.

BLM's PROCEDURES FOR IDENTIFYING AND SCREENING LANDS FOR LEASING

We found a number of procedural and other management weaknesses which could allow leases to be issued noncompetitively through the lottery that should more properly be issued competitively. These weaknesses had to do with BLM's procedures for screening lands prior to leasing and identifying known geologic structures (KGSs).

Before land is leased noncompetitively it is supposed to be checked against maps and other records to ensure that it is not in an existing or potential KGS. The triggering mechanism for a KGS designation is the drilling of a well by an oil company leading to the discovery of oil or gas. Thus, BLM's monitoring of well activity on or near federal lands is a key factor for ensuring that producing areas are designated as KGSs and lands are properly leased. Under Interior's procedures, once an oil or gas discovery is made, available geologic data--primarily oil company well data--are generally to be analyzed by BLM to set the boundaries of the KGS on the basis of subsurface geology, since a KGS is supposed to identify the configuration of a known oil or gas deposit.

We found, however, that available geologic data were often not analyzed in setting the KGS boundaries. Instead, the KGSs were administratively established to encompass a set amount of acreage surrounding each well. Further, Interior was not always aware of all wells drilled in surrounding areas, and thus some KGSs were not established at all.

This situation can be attributed to several causes--inadequate coordination within and among BLM and state offices, communication and personnel difficulties caused by organizational changes, failure to check out other well data sources, and the unavailability of certain well data for timely BLM examination. However, BLM field officials generally cited these problems and the administrative KGSs as resulting from not having enough experienced personnel to handle the large volume of work involved.

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FREQUENCY AND EFFECT OF QUESTIONABLE LEASE ISSUANCES

In spite of these procedural weaknesses, we did not find a high rate of occurrence of questionable lease issuances--although, when they do occur, the monetary effect can be significant. In the case of Amos Draw, 14 leases were issued in the lottery that might likely have been candidates for competitive leasing had KGSs been established using available geological data. However, in our review of 166 other leases in five western states, we found only four other such instances. Rather than being a result of effective BLM oversight, however, we believe this relatively infrequent occurrence is attributable more to the way KGSs are established and the way industry normally operates.

Land is not known to contain oil or gas until after a well is drilled, and thus a KGS is also not established until after drilling has occurred. By the same token, it is normal industry practice not to drill until oil and gas rights have been obtained for the area likely to be affected by the drilling. Therefore, drilling and discovery of oil and gas, along with resulting KGS designations, generally do not take place until after the land has been leased noncompetitively. Two notable exceptions where this did not happen involve areas where tracts of land were not available for lease for an extended period of time while oil and gas development was occurring nearby--(1) the Amos Draw area in Wyoming, where expired leases were withheld for several years pending environmental studies, and (2) Fort Chaffee, Arkansas, where military lands, not available for leasing until 1976, were leased noncompetitively even though there was considerable production in surrounding areas.

It is difficult to project the monetary effect of the questionable lease issuances because many factors, such as differing acquisition costs, lease terms, and rental and royalty rates, can be involved. The four such leases that we identified do not appear to involve significant revenue losses to the government to date, since none are yet producing, even though three of the four were issued in the middle to late seventies.

In the Amos Draw case, however, where a major deposit did exist, a competitive sale could have realized substantially more revenues. For example, based on a comparison of the filing fees generated with the amount for which the lottery winner was able to sell his lease, we estimated that a competitive sale probably would have generated at least $13 million more on 4 of the 14 leases where resale values could be identified. In addition, the lost revenues resulting from the lower royalty rates that noncompetitive leases generate appear to be at least $240,000 annually, on the basis of just the first two wells that began producing in early 1984.

INTERIOR'S EFFORTS TO IMPROVE THE LEASING SYSTEM

Interior has taken several actions to prevent questionable lease issuances, including tightening the procedures for establishing KGSs and screening lands prior to leasing; temporarily detailing additional employees to aid in reevaluating existing KGSs; requesting additional permanent personnel to do KGS work; and contracting with the National Academy of Sciences to examine the definition of a KGS, scheduled to be completed in 1986. In this regard, BLM obtained an additional 40 geologists in fiscal year 1985 to do KGS work and has requested 11 more for 1986, but completing its KGS workload could still take several years.

These steps, together with increased attention by BLM to any upcoming lease offerings of lands that were not available for lease for an extended period of time, should reduce the likelihood of improperly issued lottery leases. However, neither the actions taken nor any other actions are likely to totally eliminate the potential for future problems--primarily because of the degree of impreciseness inherent in setting KGS boundaries and because, in some states, if industry considers its well data proprietary, they are not initially available to Interior from the state oil and gas commissions.

IS LEGISLATION NEEDED?

As stated above, the procedures Interior has now established, assuming sufficient attention is given to making them work, should reduce the likelihood of improper lease issuances in the future. The recently settled court ruling involving Fort Chaffee, which held among other things that "competitive interest" as well as geology should be considered in KGS designations, might further help to reduce the chance of future questionable lease issuances. On the other hand, the ruling did not define competitive interest, raising a question as to how Interior should and will interpret and apply the concept in designating future KGSs.

It is also apparent that the KGS procedures are a significant administrative burden on Interior. A complete reevaluation of KGSs, even after more than 16 months of effort, still seems to be as much as 4 years away, and it could be argued that the risk of questionable lease issuances does not justify the rigorous examinations now being undertaken. In addition, Interior is currently in the difficult position of having to balance a number of objectives and criticisms, not all of which appear compatible--for example, maximizing revenues while also maximizing exploration and development; reducing speculation while making the nation's resources accessible and available to the general public; and encouraging greater competition while protecting the interests of smaller independent oil companies.

Accordingly, we believe that legislation might be desirable to clarify current congressional expectations for onshore oil and gas leasing and to help ensure that objectives are properly understood and appropriately satisfied. This matter is more fully discussed in appendix III.

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As arranged with your office, unless you publicly announce its contents, we plan no further distribution of this report until 30 days from the date of this report. At that time we will send copies to the Secretary of the Interior, Members of Congress, and other interested parties and make copies available to others upon request.

Sincerely yours,

J. Dexter Peach
Director

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ABBREVIATIONS

BLM	Bureau of Land Management
CFR	Code of Federal Regulations
DOI	Department of the Interior
GAO	General Accounting Office
IG	Inspector General
IM	Instruction Memorandum
KGS	known geological structure
MMS	Minerals Management Service
USGS	U.S. Geological Survey

APPENDIX I

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October 24, 1983

Mr. Charles Bowsher
Comptroller General
U.S. General Accounting Office
441 G Street, Northwest
Washington, D. C. 20548

Dear Mr. Bowsher:

It has come to our attention that the Director of the Bureau of Land Management (BLM) has suspended, on October 12, 1983, drawings under the Simultaneous Oil and Gas Leasing "lottery," pending a review of the decision making and administrative processes which determine that agency's lease offerings of certain Federal lands as non-competitive oil and gas tracts. At the same time, Director Robert F. Burford declared that: "(BLM) procedure for delineating Known Geologic Structures (KGS's) of proven reserves is not...efficient..."

This is a matter which requires close scrutiny to insure both protection of the public interest and the fair and equitable treatment of all prospective participants in a renewed "lottery system." We are, therefore, seeking the answers to the following questions:

1. Are BLM procedures for determining the eligibility of Federal lands for non-competitive oil and gas leasing adequate to provide a reasonable assurance that no Federal lands containing Known Geological Structures will be leased on a non-competitive basis? What are the provisions of law which restrict or govern the BLM's activity in this regard? Is additional legislation necessary, or would a change in existing regulations and procedures be sufficient?

2. What is the projected monetary effect on the Federal Treasury and each of the States or other interested parties, if the procedures have resulted in lands containing Known Geological Structures being leased on a non-competitive basis?

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3. Are the acknowledged inefficiencies in procedures for determining KGS's the principal cause of the alleged failures in screening Federal lands offered as non-competitive oil and gas lease properties; or, in the alternative, are other factors primarily responsible for the breakdown of the non-competitive lottery system, including, for example: control, management and evaluation of data; insufficiency in numbers and training of personnel assigned to the task of analyzing KGS data; and frequency and volume of non-competitive oil and gas lease offerings? Have reorganizations within the Department of the Interior, shifting responsibilities back and forth among the BLM, United States Geological Service (USGS) and Minerals Management Service (MMS), contributed to this breakdown? If so, how?

4. Has the failure of the system brought about speculation in Federal oil and gas non-competitive leasing? If so, who has benefited?

5. Have the system's procedures for delineating non-competitive leases been so inadequate that cancellation of at least some leases should be considered? Is there any evidence of fraud? If so, what are the circumstances and who may be involved?

6. Why was information relative to the classification and determination of certain lands as a KGS available to the State of Wyoming but not available to the BLM? Is there a lack of cooperation or coordination between State and Federal agencies in sharing information on drilling, exploration and production? If royalties were being collected from oil and gas production on Federal land, why did not this information alert and trigger the process that would lead to the classification of the land as a KGS? Are there communication problems between BLM offices which contribute to the problem?

7. How many leases are known,or thought,to have been issued non-competitively that should have been issued competitively? What is the acreage and production from each? How many leases were reassigned, at what value and to whom? How long has this situation gone undetected?

8. What other States are involved besides Wyoming -- in particular, other major western oil and gas producing States, such as Montana, Colorado, Utah, New Mexico, Alaska, California, as well as Florida, Arkansas and Texas?

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9. Is the procedure recently imposed by the Director of BLM requiring each State Director to "clear list" lands before further issuance of oil and gas leases adequate to remedy the problem?

10. Known Geologic Structures have not been defined in Wyoming since March of 1972. A procedure known as an "undefined KGS" has been used to "clear list" parcels for the simultaneous oil and gas leasing program. This latter procedure in Wyoming appears to be too conservative in scope, inadequate in timeliness and of questionable value. What is the reason, or reasons, for an eleven-year backlog in the designation of KGS's in Wyoming? Is it lack of personnel or lack of adequate oversight and procedure? Does a similar situation exist in any other State?

Inasmuch as this is a matter of great concern and timeliness, we ask that you attach a high priority to this study. We are therefore requesting your initial response within 30 days. Any information not available by that date may be provided in a supplemental transmittal. We do not want formal agency comments on your findings at this time. However, due to the complexity of the problem, we do feel the agencies should be involved and informed and their cooperation enlisted.

Any questions you may have concerning this request should be directed to William L. Shafer (225-6048).

Thank you in advance for your cooperation in this most important matter.

Sincerely,

Morris

MORRIS K. UDALL
Chairman

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OBJECTIVES, SCOPE, AND METHODOLOGY

We made this review in response to a request from the Chairman, House Committee on Interior and Insular Affairs. In his October 24, 1983, letter to GAO, the Chairman noted his concern about certain noncompetitive lease offerings that prompted a suspension of the oil and gas lottery on October 12, 1983. He stated that a renewed lottery system should ensure both protection of the public interest and the fair and equitable treatment of all prospective participants. He asked that we respond to a series of questions concerning

- --the adequacy of Bureau of Land Management (BLM) procedures for identifying federal lands that are within a known geological structure (KGS) of a producing oil and gas field, and assuring that they are leased competitively;
- --the related provisions of law and whether changes are needed;
- --the likely frequency, causes, and effects of issuing leases noncompetitively that should have been issued competitively;
- --the adequacy and effects of the Department of the Interior's attempts to correct deficiencies in identifying and delineating KGSs; and
- --the effect of questionable lease issuances on speculation and whether fraud has been associated with the inappropriate award of noncompetitive leases.

Our approach, which was coordinated with members of the Committee staff, began with performing limited field work to identify general problems and weaknesses in procedures for designating lease offerings as either competitive or noncompetitive. Except for Alaska, our work covered all states specifically mentioned in the Chairman's letter. We made field visits to seven states--California, Colorado, Mississippi, Montana, New Mexico, Utah, and Wyoming--and interviewed BLM officials assigned to headquarters and the eastern states office in the Washington, D.C., area.[1]

At each state visited, we obtained available documentation on KGS procedures and practices and interviewed (1) BLM

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[1]The eastern states office has administrative responsibility for oil and gas leasing activity on federal lands in all states bordering on, and east of, the Mississippi River.

officials assigned to state and district offices and (2) state government officials involved in oil and gas leasing. In addition, since competitive leasing occurs only after BLM has made a determination that a lease offering is within a KGS, we reviewed the legislative history, federal regulations, federal agency instructions, and court cases involving KGS determinations.

Our next step was to attempt to quantify the extent, causes, and effects associated with BLM awarding questionable noncompetitive leases. Since the quantification effort involved a statistical sample approach and in-depth work on each randomly selected lease, we limited the universe to five major oil and gas producing states. These states--Colorado, Montana, New Mexico, Utah, and Wyoming--have nearly 70 percent of the active federal leases and over 85 percent of the federal leases that are producing or capable of production.

From a universe of over 86,000 noncompetitive leases in the five states, we randomly selected 245 leases for review. In order to determine the appropriateness of the noncompetitive award, we first determined if BLM had considered all oil-and gas-producing wells within 5 miles of the sample lease. Data to make this determination were compiled from commercial maps showing the location of oil and gas wells and individual well records maintained by state government agencies. Our staff geologist examined available geologic data for those leases near a producing well. We then reviewed with BLM geologists the rationale for and appropriateness of the noncompetitive award on the basis of procedures and geologic data that existed at the time the decision was made.

We abandoned the sample approach after reviewing 166 of the 245 sample leases because of the following:

--We had identified only four questionably awarded leases. We could not determine the specific reason for the noncompetitive award of three of the four leases because the responsible personnel were no longer there and the geologists now there were unable to reconstruct the likely basis for the decision. Thus, we would have been unable to have projectible statistical data on specific causes that resulted in the questionable lease awards even if we had completed all 245 sample leases.

--Projections on the monetary effect of questionable awards also could not be developed because we were unable to obtain the necessary information from private parties to place a value on them at the time of their issuance.

During field visits in each of the five states reviewed, we obtained data to assess BLM's efforts to correct deficiencies

that could lead to the erroneous award of noncompetitive leases. This work included assessing new instructions and practices for making KGS determinations, determining staffing and workload requirements associated with updating KGSs and making leasing decisions, identifying organizational responsibilities within BLM, and determining whether BLM adequately coordinates with state agencies on the exchange of data.

Industry views on BLM efforts to correct problems in the lottery system were obtained through interviews with representatives of three major oil and gas associations representing 7,000 members and 13 separate companies. The associations contacted were Rocky Mountain Oil and Gas Association, Independent Petroleum Association of Mountain States, and Independent Petroleum Association of America. The companies interviewed covered a variety of small, medium, and large firms, including Cities Service, Duncan Oil, and Coors Energy in Colorado; Hunt Oil and Sumatra Oil in Montana; Arapahoe Oil and Cebla Energy in New Mexico; Skyline Oil and Fortune Oil in Utah; and True Oil, Marathan Oil, and two wildcat oil operators in Wyoming.

With respect to fraud and other abuse issues, we relied primarily on the work of the Department of the Interior's Office of Inspector General (IG), which conducted an investigation of the leases issued at Amos Draw, and has other investigations and audits in process. Also, we are aware, but did not review the results, of other investigations--either underway or not formally released--by the House Appropriations Committee, the U.S. Attorney's Office in Wyoming, and various state governments. The IG staff looked for potential fraudulent activities by BLM employees who made leases available for the lottery, lease winners, and oil companies that obtained Amos Draw leases. Its review began in September 1983, and the results were presented in a report issued August 2, 1984. We also obtained data on filing service practices from various sources, primarily Interior's IG staff, and appropriate state agencies.

To determine the effect of questionable leases on speculation, we reviewed trends in lottery participation since 1970, interviewed BLM officials who administer the lottery, and reviewed prior studies on persons who invest in the lottery. A major information source was a GAO report on speculators in the lottery entitled Are Leaseholders Adequately Exploring for Oil and Gas on Federal Lands? (GAO/EMD 82-82, August 23, 1983).

Our work covered the period from November 1983 to December 1984 and was conducted in accordance with generally accepted government auditing standards. At your request, we did not obtain official agency comments on a draft of this report. We did, however, discuss the results of our work with agency officials and have incorporated their remarks where appropriate.

PROCEDURES AND PROVISIONS OF LAW FOR ESTABLISHING KGSs AND SCREENING LAND FOR LEASING

We were asked a number of questions--as follows--dealing with the adequacy of BLM's procedures for establishing KGSs and screening lands to assure that they are appropriately leased, and whether legislation is needed:

--"Are BLM procedures for determining the eligibility of Federal lands for non-competitive oil and gas leasing adequate to provide a reasonable assurance that no Federal lands containing Known Geological Structures will be leased on a non-competitive basis? What are the provisions of law which restrict or govern the BLM's activity in this regard? Is additional legislation necessary, or would a change in existing regulations and procedures be sufficient? (Committee question 1.)

--"Is the procedure recently imposed by the Director of BLM requiring each State Director to 'clear list' lands before further issuance of oil and gas leases adequate to remedy the problem? (Committee question 9.)

--"Known Geologic Structures have not been defined in Wyoming since March of 1972. A procedure known as an 'undefined KGS' has been used to 'clearlist' parcels for the simultaneous oil and gas leasing program. This latter procedure in Wyoming appears to be too conservative in scope, inadequate in timeliness and of questionable value. What is the reason, or reasons, for an eleven-year backlog in the designation of KGSs in Wyoming? (Committee question 10.)

--"If royalties were being collected from oil and gas production on Federal land, why did not this information alert and trigger the process that would lead to the classification of the land as a KGS?" (Part of Committee question 6.)

OVERVIEW

BLM has issued a series of instructions since suspension of the lottery program in October 1983 establishing procedures that, if followed, should substantially reduce the risk of noncompetitively leasing federal lands containing KGSs. The procedures do not, however, provide absolute assurance that no federal lands properly classifiable as KGSs will be leased noncompetitively, mainly because of the impreciseness inherent in delineating KGSs, and because in some states well data are confidential and not initially available to Interior. The problems resulting in the lottery suspension were basically caused by streamlined practices

necessitated more by a heavy workload than lack of written procedures, as discussed in appendix IV. Legislation, however, might be useful, in our opinion, to clarify current congressional expectations for onshore oil and gas leasing and to help ensure that objectives are properly understood and appropriately satisfied.

The Mineral Leasing Act of 1920 introduced the phrase "known geological structure of a producing oil or gas field." Under that law, federal lands containing such a structure must be leased competitively by the Secretary of the Interior; all other lands covered by the act must be leased noncompetitively. Within that statutory framework, the Department of the Interior issues onshore oil and gas leases in one of three ways: (1) lands within a KGS are leased competitively under sealed bid, (2) lands outside a KGS and not previously leased are leased noncompetitively "over the counter" to the first applicant submitting a filing fee to BLM, and (3) as leases outside a KGS expire, BLM announces their availability under the simultaneous, or "lottery," system, whereby all applicants submit a nonreturnable filing fee and the lease is awarded to one randomly selected applicant. In fiscal year 1983, 60 percent of the onshore oil and gas leases were issued through the lottery system.

The term KGS, as used in the Mineral Leasing Act, is broad in meaning although its meaning has been somewhat narrowed in regulations. According to 43 CFR 3100.0-5, ". . . a KGS is technically the trap in which an accumulation of oil or gas has been discovered by drilling and determined to be productive, the limits of which include all acreage that is presumptively productive." Because of the difficulties in determining the outer confines of the trap, there is some impreciseness in setting the actual boundaries of a KGS.

Interior's primary controls over possible inappropriate lease issuance are (1) assuring that KGS boundaries are properly established and (2) checking, or "clearlisting," tracts of land prior to issuing a lease to verify that they are not in a KGS. These are discussed below.

KGS PROCEDURES

Department of the Interior guidance on classifying lands for noncompetitive oil and gas leasing consists of U.S. Geological Survey (USGS) Circular 419 (1959); USGS Conservation Division Manual, Part 620 (1981); and three recent memorandums issued by BLM. Issued in October 1983, instructional memos 84-35 and 84-36; and 84-439, issued in April 1984, were not intended to supersede previous written guidance. Instead, they reiterated longstanding USGS procedures calling for geologists to use available geological data to make informed, reasoned, documented judgments of KGS boundaries. The memos did put BLM staff on notice that some past

KGS determination practices would no longer be acceptable. In summary, these five documents help to clarify a difficult task--how and where to draw KGS boundaries.

Circular 419, issued in 1959, recognized that the meaning of the term "known geological structure" in the 1920 Mineral Leasing Act had long been difficult to interpret. The circular defined a KGS as a structural or stratigraphic trap of oil or gas, the limits of which ". . . include all acreage that is presumptively productive." The circular also described two kinds of KGSs--defined and undefined.

Geologists refer to an area as an "undefined KGS" before they know the extent of the producing area. This is done by reviewing individual well records, first production reports, and other data showing that oil and gas wells are producing on or adjacent to federal lands. By applying an undefined KGS status to the producing area, the geologists protect the area from further noncompetitive leasing. Undefined KGSs are converted to "defined KGSs" when the productive limits of the producing structure are known and sufficient geologic and engineering data are available to establish the structure's boundary. Defined KGSs require comprehensive documentation that must be technically complete and formally reviewed within BLM headquarters to verify the reasons for and the extent of the KGS determination. After this review, a notice of the KGS determination is published in the Federal Register.

The essential differences between an undefined and a defined KGS have to do with the intensity of review efforts and the administrative requirements. The administrative requirements involved in defining KGSs are comprehensive and time consuming, and both defined and undefined KGSs are recognized as the same, since lands within each must be leased competitively. Therefore, Interior staff often opt not to make defined KGSs. In fact, according to a USGS report,[1] staff in several offices recommended eliminating the formal procedure of defining KGSs, as long as undefined KGSs were worked with to the point that they had the same technical accuracy as defined KGSs.

In September 1981, the U.S. Geological Survey (USGS) Conservation Division Manual, Part 620, spelled out in greater detail the specific procedures for determining KGSs. It also discussed the difficulty and subjectivity of drawing KGS boundaries:

"The limits of a KGS should include all lands which overlie the productive trap. Such limits may be

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[1]The Onshore Oil and Gas Program: A Growing Program in Need of More Aggressive Management and Additional Staff, USGS Report PA-81-1, Mar. 10, 1981.

established by drilling or by a competent, defensible geological analysis of the trap. Until information becomes available to indicate the extent of the trap, the professional judgment of the persons responsible must be relied upon in establishing the probable areal extent of the producing reservoir."

Present procedures do, however, restrict KGS determinations to areas that have been successfully drilled, since there is no other way to know if a structure is capable of producing oil or gas. The Department of the Interior has interpreted this to mean that any prospectively valuable lands outside a KGS cannot be leased by competitive bidding, even where competitive interest in the lands appears high.

The proper interpretation of the act's KGS provisions, however, has been at issue as a result of litigation related to the approach used to draw KGS boundaries in and near Fort Chaffee, Arkansas.[2] In May 1984, the Eighth Circuit Court of Appeals affirmed a district court's decision that the Department of the Interior improperly drew KGS boundaries and thereby invalidly leased lands within the fort noncompetitively. The district court held--and was sustained on appeal--that Interior failed to consider all available geological data, as well as competitive interest. The effect of the courts' inclusion of competitive interest is uncertain. In asking for a rehearing, the government contended that a non-geological factor such as competitive interest was inconsistent with the Mineral Leasing Act unless it only meant that a "harder look" at the geologic data is warranted. Whether the court's holding will be applied by Interior on a nationwide basis is being considered.

Because of this uncertainty over competitive interest, BLM officials in Wyoming, as of March 1985, were withholding the award of 88 leases that were offered noncompetitively in the overthrust area of western Wyoming. Prior to 1975, geologists knew very little about the area; geology was complex, and no major discovery had been made. Because of recent discoveries, the oil and gas industry now considers the overthrust belt to be one of the most promising oil and gas provinces in the United States. However, the complex geology makes the interpretation of geological data extremely difficult, and BLM must depend upon industry to provide

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[2]In 1976, acquired military lands were legislatively opened to mineral leasing. As a result, in 1979, 33,000 acres within Fort Chaffee were leased noncompetitively via the over-the-counter method. Interior found that the lands were not within a KGS even though they were near production areas. The leases were contested, and the matter was in the courts until early 1985.

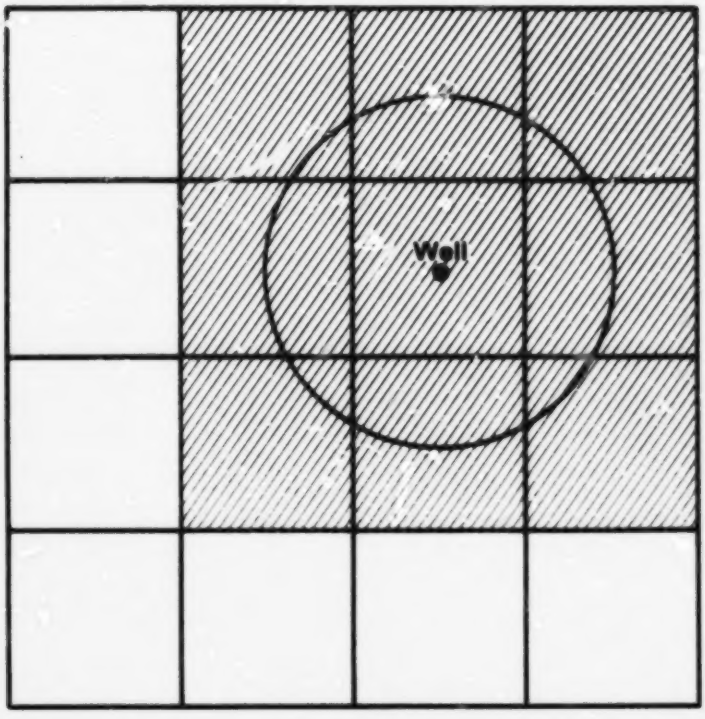
data necessary to adequately establish KGSs in the overthrust area. At present, BLM does not have the data it believes are necessary to determine how much of the overthrust area should be in a KGS.

The Supreme Court decided in early 1985 to not review the appellate court's decision. Thus--unless legislation is passed to clarify this ruling, as discussed below--BLM may be required to rewrite its regulations and procedures on KGS determination to go beyond geology and consider competitive interest. On the other hand, the Fort Chaffee ruling might provide Interior with the flexibility needed to prevent future occurrences similar to those at Amos Draw and Fort Chaffee.

Use of administrative step-outs to establish KGS boundaries

The immediate cause of the lottery suspension in October 1983 was the practice of "administrative step-outs." Just prior to the lottery suspension, it was widely publicized in the news media that several tracts of land in the Amos Draw area of northeast Wyoming, known to contain oil and gas, had been inadvertently leased by BLM noncompetitively through the lottery. It was reported that lease winners had immediately resold the leases at profits running into the millions of dollars. A practice of establishing KGSs by using administrative step-outs rather than geology was reported as a major cause.

We found that BLM routinely used administrative step-outs to define KGS boundaries in Wyoming and other states over the past 10 years. Rather than base KGSs on well or other geologic data, KGSs were delineated based on "spacing units," that is, the estimated surrounding area considered to be drained by the well. Spacing units, determined by state agencies, limit the closeness of adjacent wells and range from 40 to 640 acres. In northeastern Wyoming, the area drained was considered to be 80 acres and the administrative procedure involved plotting the location of a producing well on a plat map and drawing an 80-acre circle around the well. Every 40-acre tract the circle reached was included in the KGS. As illustrated below, KGSs that were based on this procedure encompassed every 40-acre tract within a 1/5-mile radius of the well and created 360-acre KGSs.



One section of 640 acres
containing 16, 40-acre tracts

This practice had resulted in BLM's designating four KGSs comprising approximately 3,760 acres in the Amos Draw area of northeast Wyoming. BLM later obtained geologic data showing that a common reservoir of gas and oil was under all four administratively determined KGSs. On November 23, 1983, BLM consolidated the four prior KGSs into one large KGS covering 28,755 acres. This geologic determination encompassed 14 leases totaling 11,012 acres that had been issued noncompetitively in August 1983.

The extent to which geologists used administrative step-outs and geology in establishing KGS boundaries varied between states. In the states reviewed, we found that geologists in

--Wyoming had used administrative step-outs exclusively for at least the past 11 years;

--Montana primarily had used step-outs since 1981 but did use geologic data when they were available; and

--California, Utah, Colorado, New Mexico, and the Eastern states had used a combination of geology and administrative step-outs.

BLM Instructional Memorandums (IMs) 84-35 and 84-439 responded to the practice of administrative step-outs after the occurrence of Amos Draw. IM 84-35, issued in October 1983, states that an administrative step-out was not a "sufficient" procedure, though the approach was not entirely ruled out.[3] The instruction requires that all existing KGSs be reevaluated to assure that they had been done in accordance with established procedures.

IM 84-35 was not written, however, in the kind of detail that assures consistent interpretation by individual geologists at scattered locations working in unique geological regions. As a result, we found that BLM's KGS practices still varied widely from state to state after October 1983 when the memo was issued. In particular, geologists in Wyoming did much more KGS documentation than those in states such as Montana and Utah, and geologists in Utah interpreted the boundaries of stratigraphic traps more liberally than their colleagues elsewhere.

IM 84-439 was issued April 1984 to deal with this problem of inconsistency and the need for better documentation of KGS analyses. It calls for detailed written documentation and established technical reviewers--skilled KGS geologists--in each state to review KGS determinations.

The procedures established by IMs 84-35 and 84-439 appear to be reasonable and could substantially reduce the possibility of issuing leases inappropriately. However, the full extent of their implementation remains uncertain.

BLM oil and gas geologists in Colorado, New Mexico, Utah, and Wyoming told us they do not plan to reevaluate about 300 KGS determinations made between October 1983 and April 1984 because it would not be cost-effective. The Montana BLM State Director, however, believes it is necessary to reevaluate the KGS determinations but estimates it will take 3 to 4 years to complete this task with present staff levels.

Several BLM field geologists told us that written procedures are only as good as the professional judgment of those using

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[3]In wildcat areas, the lack of data from drilled wells may leave no alternative to step-out procedures. BLM oil and gas geologists in the five states we visited told us that some form of administrative step-out is necessary when no geologic data exist, such as for discovery wells in a new production area.

them. They said that both IMs imply, without clearly stating, that staff are to be less "conservative" in the future when drawing KGS boundaries. In other words, KGSs should be made larger and this is what appears to be happening. As of November 1984, for example, KGSs had been expanded by over 4 million acres nationwide, including nearly 3 million acres in Wyoming. Along this line, four KGS determinations in Utah were appealed by affected leaseholders/applicants as being too large and without adequate geologic basis. By late 1984, Interior had already reduced the size of one KGS.

BLM has contracted with the National Academy of Sciences for a study of its KGS procedures and the definition of what a KGS should be. The study began in 1984 and is expected to be completed in 1986. In addition, BLM is developing a legal casebook on KGSs, a "first production" manual, and a detailed KGS procedural manual to help make KGS determinations.

CLEARLISTING PROCEDURES

Clearlisting is a process of checking potential noncompetitive leases against KGS maps and records to verify that the lands are not in a KGS. Although clearlisting was usually done once, prior to final lease award, BLM now requires that clearlisting occur before tracts are posted on the lottery lists and again after winners are selected and notified, but prior to lease issuance. The revised clearlisting procedures, in our opinion, when used with accurate and complete information, and coupled with the new KGS procedures, should considerably reduce the likelihood of improperly issued lottery leases.

In the case of Amos Draw, the BLM geologist clearlisted leases on the basis of a KGS map and records that did not contain up-to-date information on producing wells. Instruction memo IM 84-36, issued in October 1983, emphasized the importance of the clearlisting procedures and the KGS procedures that are contained in IM 84-35, and required state directors to certify that they are using the new KGS procedures to clearlist lands before further issuance of oil and gas leases.

The clearlisting procedures used in Wyoming are illustrative of how clearlisting operates. In Wyoming, Casper district geologists use a push-pin map method to identify the general location of a KGS. Wells on federal lands, nonfederal lands, and sites where wells are being or may be drilled are identified on the map with differently colored pins. In clearlisting, a pin in the vicinity of a pending lottery lease serves as an indicator that a KGS is or may be near the pending lease. The geologists then compare newly offered leases with the pins on the map, check well records and commercial reports, and clearlist leases to ensure that they do not fall within a KGS. For example, if a pin

indicates a permit to drill has been granted, the status of that well would be checked prior to lease issuance.

Although KGS geologists in California, Utah, and Wyoming stated that they will not redo any KGS determinations done since October 1983, they are implementing the new clearlisting procedures. However, as will be discussed in appendix IV, the data base needed for accurate clearlisting is still not complete. Accordingly, BLM officials told us that their first priority is to clearlist parcels distant from KGSs and therefore less likely to be subject to KGS reclassification. This may result in holding back the more desirable tracts. As shown below, a large number of parcels were not applied for in the August 1984 drawing.

State	Parcels offered	Parcels not applied for	Percentage not applied for
Colorado	593	25	04
Montana	587	297	51
New Mexico	597	395	66
Utah	583	296	51
Wyoming	553	75	14
Total	2,913	1,088	37

The large number of parcels not applied for differs from past lease drawings in which virtually all parcels were applied for and is probably attributable--in addition to being distant from producing areas--to (1) changes that require an advance rental deposit (discussed in app. VI) and (2) the unusually large number of parcels offered.

REASONS FOR AN 11-YEAR BACKLOG IN THE DESIGNATION OF KGSs IN WYOMING

BLM geologists have not made either defined or geology based KGSs in Wyoming for at least 11 years because of workload demands, insufficient staff resources, and time constraints. During this 11-year period, the geologists normally used only administrative step-outs and not geology to make KGS determinations. Like Wyoming, we found that Colorado, Montana, New Mexico, and Utah have not made defined KGSs in at least 10 years for some of the same reasons, which are discussed in more detail in appendix IV.

To comply with IM 84-35, BLM district offices would have to reevaluate many completed KGSs. This workload could limit the district or state offices' ability to make defined KGSs and clearlist other parcels for timely noncompetitive leasing since KGS reviews are comprehensive and time consuming. Montana BLM

officials estimated that reviewing their KGSs will take anywhere from 3 to 4 years.

The following table depicts the status of KGSs in the five states we reviewed, 11 months after the lottery suspension, showing the slow rate of progress being made in reviewing the KGSs.

Status of KGS as of November 1984

State	KGSs reviewed	KGSs not reviewed	Acreage added to KGSs
Colorado	32	230	114,160
Montana	11	408	45,376
New Mexico	48	124	382,188
Utah[a]	104	6	865,800
Wyoming	385	522[b]	2,896,213

[a]Based on KGS status as of August 1984.

[b]Based on total KGSs prior to suspension.

Source: Bureau of Land Management.

An oil and gas association complained that since Interior is not issuing noncompetitive leases near unreviewed KGSs, many desirable leases that industry needs or wants are not available to them.

WOULD ROYALTIES BEING COLLECTED FROM PRODUCTION ALERT THE NEED FOR CLASSIFICATION OF THE LAND AS A KGS?

Although there is no current system for using royalty collections to assure that all producing wells on federal lands are identified for KGS purposes, this was not an issue in the Amos Draw situation. In that case, BLM had knowledge of producing wells on federal lands but did not have knowledge of producing wells on nearby state and private lands.

When a well on federal land starts producing, the operator forwards a first production letter to BLM. This letter contains information on the date production began, the initial production rate, the lease number, the well location, and the well operator.

In addition, BLM receives an Individual Well Record[4] and uses either the first production letter or the well record to trigger KGS determinations. Both documents precede royalty collection.

Royalty collection information could be used as a basis for cross-checking BLM's KGS documentation; however, some limitations exist. For instance, if the lessee stores the oil and gas produced by the well, royalty reports are not prepared and thus would not be sent to the Minerals Management Service (MMS). Only when oil or gas is sold and reported does MMS receive royalty revenue.

IS ADDITIONAL LEGISLATION NECESSARY?

As stated earlier, the procedures Interior has now established--assuming sufficient attention is given to making them work--should reduce the likelihood of erroneous lease issuances in the future. However, it is also apparent that these procedures are a significant administrative burden on Interior. A complete reevaluation of KGSs, even after more than 16 months of effort, still seems to be as much as 4 years away. Further, it is unclear, after the Eighth Circuit Court of Appeals decision involving Fort Chaffee, how Interior will implement the KGS concept in the future. Accordingly, legislation might still be desirable to clarify current congressional expectations and, hopefully, ease Interior's effort. However, the exact nature of the legislation depends on the objectives being sought.

In our opinion there are two primary objectives to consider in framing further legislative change--maximizing production or maximizing revenues. The present law seems designed to enhance and encourage exploration--and thus eventual production--on lands of unknown potential by making leases easy and inexpensive to get, and by allowing the lessee 10 years for exploration versus the 5 years granted in a competitive lease. If the Congress wishes to retain this emphasis, the present system seems to work reasonably well. However, even then we believe legislation might be desirable to clarify the Fort Chaffee ruling, especially with respect to the issue of competitive interest.

If, however, the Congress wants to maximize revenues or for other reasons decides to eliminate the lottery system, legislation would still likely be needed. Most of the alternatives to the lottery system that have been proposed have had the objective of increasing revenues and/or decreasing nonindustry speculation. They include, but are not limited to, the following:

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[4]A form showing various information on the drilling results such as location, depth and, in the case of a successful well, the initial daily production quantities of oil and/or gas.

--An all-competitive system, presently advocated by segments of Congress and state governments which believe it would increase revenues and discourage the individual speculator from participating in oil and gas leasing. It would also eliminate the need for KGS analyses and designations but would increase the need, under present procedures, for presale economic evaluations to establish a minimum acceptable bid. Since lottery filing fees are not shared with the states, but bid receipts are, it would also result in increased revenue for the states.

--A more competitive system based on establishing larger "geologic provinces"--larger areas relative to a KGS that are deemed favorable for the discovery of oil or gas. This would likely still involve geological analyses.

--A tiered-approach in which all lands would be initially offered competitively, and those attracting little interest would revert to noncompetitive leasing.

--A similar approach in which lands would be offered initially at high rentals, and the rentals periodically lowered until someone takes the lease.

--The achievement of higher revenues through increased rents or royalties, with higher rents in particular seen as reducing individual speculation.

Some of these alternatives would eliminate the need for KGS designations and could be expected to reduce speculation. But they might create other new administrative requirements, such as requiring economic evaluations and some kind of nomination process for proposed competitive leases and having to reoffer lands of little interest in the case of the tiered-approach. Further, conversion to a new leasing system could result in another lengthy suspension of leasing while it is put in place. Lastly, any consideration of options should weigh the arguments of the possible adverse impact on the smaller oil firms, and the philosophical argument of how accessible and available the nation's resources should be to the general public.

CAUSES FOR QUESTIONABLE LEASE ISSUANCES

We were asked the following questions on the causes for questionable lease issuances:

--"Are the acknowledged inefficiencies in procedures for determining KGSs the principal cause of the alleged failures in screening federal lands offered as non-competitive oil and gas lease properties; or, in the alternative, are other factors primarily responsible for the breakdown of the non-competitive lottery system, including, for example: control, management and evaluation of data; insufficiency in numbers and training of personnel assigned to the task of analyzing KGS data; and frequency and volume of non-competitive oil and gas lease offerings? Have reorganizations within the Department of the Interior, shifting responsibilities back and forth among the BLM, United States Geological Survey (USGS) and Minerals Management Service (MMS), contributed to this breakdown? If so, how? (Committee question 3.)

--"Why was information relative to the classification and determination of certain lands as a KGS available to the State of Wyoming but not available to the BLM? Is there a lack of cooperation or coordination between State and federal agencies in sharing information on drilling, exploration and production? Are there communication problems between BLM offices which contribute to the problem? (Part of Committee question 6.)

--"Is [the reason for a backlog of undefined KGSs due to] lack of personnel or lack of adequate oversight and procedure? Does a similar situation exist in any other state?" (Part of Committee question 10.)

OVERVIEW

BLM officials in the field indicated that lack of sufficient personnel to handle the large volume of KGS actions and lease screenings that it faced necessitated certain shortcut approaches, such as the use of administrative KGSs, and contributed to the lack of information on certain wells as well as to communication problems. In this regard, the workload associated with onshore oil and gas leasing has been substantial. At the beginning of 1984, there were about 134,000 federal onshore oil and gas leases covering 163.6 million acres, about 4,000 KGSs, and about 15,000 leases either producing or capable of producing oil and gas. Another potential problem is that in some states, well data on state and private lands may not be made available for timely examination by BLM.

Although BLM attempted to correct its procedural and personnel difficulties during the 10-month suspension, we found many problems were still evident when BLM resumed the lottery in August 1984. In addition, the personnel increases that BLM made available to perform KGS studies were often accomplished through temporary reassignments from other programs, which could adversely affect them. BLM has now, however, hired 40 additional geologists to do KGS work and is requesting 11 more for fiscal year 1986.

STAFFING PROBLEMS

According to the Casper BLM District Manager, the underlying cause for using administrative step-outs and BLM's being unaware of all producing wells in the Amos Draw areas was insufficient staffing to process the volume of KGS actions and lease offerings in Wyoming. Wyoming has the largest volume of lottery leasing and KGS work of any state in the leasing program but, according to the Acting Minerals Manager, North Central Region of Wyoming, this work did not receive the personnel or budget support needed to adequately accomplish it prior to the suspension.

The problem was not limited to Wyoming. In at least some districts in all of the five states we reviewed, KGS determination actions had received lower priority than other work, such as unit agreements and drilling permits, and were thus not adequately staffed before the lottery suspension.

After the suspension, BLM attempted to find qualified staff to make KGS determinations. We found, however, that many of these geologists were inexperienced, some were new employees, and some were transferred from other BLM programs, such as the coal program. BLM has also been assigned temporary staff from USGS and MMS. According to the BLM Director, the agency currently has a very limited number of geologists experienced in making KGS determinations.

The temporary reassignment of geologists to perform KGS work has created problems in those areas where the geologists were formerly assigned. For example, a Casper district official noted that a serious backlog has developed in the solid minerals area because personnel were reviewing KGSs. Backlogged work included (1) processing applications for preference right coal leases, (2) preparing for mineral sales or coal exchanges, and (3) inventorying coal resources for future coal lease sales.

To alleviate the staffing problem, BLM hired 40 additional geologists in fiscal year 1985, is seeking 11 more for 1986, and has awarded a contract to a private firm to identify existing KGSs requiring expansion and/or consolidation.

DATA PROBLEMS

We noted that in Wyoming as well as in other states BLM did not have all the data needed on producing wells, especially wells on state and private lands, that could affect KGS determinations on federal lands. Lease operators submit data to BLM for wells on federal land, and to state governments, generally through state oil and gas commissions, for wells on state and private lands.

The following examples illustrate the differences between BLM and state-held well records, on the number of producing wells in various states:

Differences in BLM and State Data on Producing Wells

State	Township		Section[a]	Producing wells per BLM records	Producing wells per state records
Colorado	10N	94W	32	0	2
	2S	103W	10	2	4
	6N	58W	6	0	3
	9N	93W	4	0	2
	8N	90W	31	0	3
New Mexico	24N	9W	15	0	2
	24N	9W	19	0	1
Wyoming	41N	66W	14	8	1
	41N	66W	10	0	4
	41N	66W	4	0	4
	41N	67W	22	0	1
	42N	66W	32	0	4
	43N	65W	31	4	3
	47N	102W	16	3	7
	47N	103W	3	3	6

[a]Each township is divided into 36 numbered sections of 1 square mile each.

Source: BLM and state oil and gas commissions.

Although drilling, exploration, and production information on state and private lands is generally available to Interior agencies, and the state oil and gas commissions having these data cooperate with BLM, we found that coordination between these agencies could be improved. For example, the State of Colorado

does not forward well information to BLM because of limited staff and funds, and Wyoming does not send BLM any data because in the past, BLM has returned it. Unlike these two states, Montana, New Mexico, and Utah regularly forward well information to BLM state offices. In eastern and midwest states where there is much less federal land, it would probably not be cost-effective for BLM to maintain state-held well information since most of it would not have relevance to federal lands.

Another problem is BLM's inability to review confidential well data for state and private lands in some state files, which can preclude a timely KGS designation on nearby federal lands. For example, oil companies may consider certain production and well data as proprietary, or confidential, and may request that a state withhold this information. States covered by our review had varying policies for withholding information. In New Mexico, the policy is to withhold confidential information from the public--including the federal government--for 90 days; in Utah, for 9 months; and in Colorado, 6 months. Montana, on the other hand, does not maintain confidential data in its files, but operators can take 6 months before providing the state with information on those wells in nonproducing areas.

Unlike these states, Wyoming does allow BLM geologists to review, in the commission office, confidential well data as soon as they are received. Thus, well data on nonfederal land relevant to Amos Draw were available to BLM from the state government, but we were advised by the BLM geologist that they were not obtained because of insufficient time and staff in the Casper, Wyoming, BLM office. Thus, the BLM geologist that clearlisted parcels for noncompetitive leasing around Amos Draw was unaware of producing wells on nearby state and private lands. However, it should be noted that even had he known of these wells, he would, under step-out procedure, have withdrawn only 80 acres from the land awarded noncompetitively in August 1983 rather than the 11,012 acres that have since been included in KGSs after a review of the geological data.

ORGANIZATIONAL AND COMMUNICATION PROBLEMS

Interior reorganizations since February 1980 shifted KGS responsibilities between various agencies and contributed to problems in administering the lottery. The USGS Conservation Division made KGS determinations until January 1982, when the responsibility was transferred to the newly created MMS. In April 1983, during another reorganization, Interior transferred the MMS onshore minerals program, including KGS work, to BLM. BLM then decentralized KGS responsibilities to their district offices. These reorganizations have created personnel problems, decentralized KGS responsibilities, and isolated geologists from state oil

and gas commission well records, as indicated below for the five states we reviewed:

--In Wyoming, a major reorganization in the Conservation Division in February 1980 created the North Central Region in Casper, Wyoming. However, the Casper office assigned only one person to KGS activities because of the large workload in other areas, and he transferred to MMS in Denver, Colorado, in April 1983, when BLM became responsible for KGS activities. In June 1983, 2 months after becoming responsible for KGSs, BLM assigned another geologist in Casper to do KGS determinations. The Wyoming BLM office then decentralized KGS responsibilities to the district level in September 1983, resulting in three district offices' having to assign personnel to KGS work from other duties.

--Three experienced geologists in the Grand Junction, Colorado, MMS office made KGS determinations for Colorado, but only one geologist transferred to BLM after the April 1983 reorganization. In addition, new BLM geologists assigned to perform KGS work were not familiar with oil and gas activities and were provided little or no formal training.

--In Montana, two MMS geologists made KGS determinations for Montana, North Dakota, and South Dakota, and the KGS actions were considered by MMS staff to be up to date before BLM assumed KGS responsibilities. However, the geologists did not transfer to BLM. The BLM state office also transferred KGS records to its district offices and 60 KGS actions became backlogged before BLM suspended the lottery. Because this decentralization hampered KGS determinations, the BLM Montana office in June 1984 recentralized its KGS activities in the state office to thoroughly review previously completed actions. The chief oil and gas geologist believes this action will improve cooperation and coordination between state of Montana officials and BLM.

--The one state covered by our review where assigning KGS work to BLM did not create staffing problems is New Mexico. MMS had decentralized KGS actions in Roswell and Farmington, New Mexico, and in Tulsa, Oklahoma. BLM retained these former MMS offices and most MMS personnel transferred to BLM.

--Three geologists made KGS determinations for MMS in Utah. Only two geologists transferred to BLM and

both remained in the state office when the Bureau decentralized KGS responsibility to the districts. Two district offices had to reassign staff from other duties to do KGS work.

Another problem that resulted from the various reorganizations was that many BLM geologists were isolated from state records containing well data on state and private lands. State oil and gas commission offices holding these records are usually centralized in areas like Billings, Montana; Denver, Colorado; Salt Lake City, Utah; and Casper, Wyoming. Because BLM allowed its state offices to delegate KGS responsibilities to the districts, some district offices in these states were isolated geographically from state-held data. According to BLM geologists responsible for KGS work in Colorado, Montana, Utah, and Wyoming, time and distance do not permit these district geologists to review state-held well records on a regular basis to obtain the information needed to assure that all producing wells are considered when making KGS determinations. As noted on page 30, however, some of these states are sending the information to the BLM state offices.

Listed below are the number of separate offices making KGS determinations in the states we reviewed.

State	Offices making KGSs
Colorado	3
Montana	1
New Mexico	3
Utah	3
Wyoming	4

Communication problems between BLM offices

We also found that communication problems within BLM existed at Amos Draw and other locations. According to the Casper BLM district manager, even though a resource area office forwarded completion data on three wells to the Casper Records Office, it did not reach the Branch of Fluid Minerals which does the KGS work. The records office, although co-located with the Branch of Fluid Minerals, is not responsible for providing well completion data to the Branch. Consequently, the geologist was unaware that the data were available and did not examine them in the records office when clearlisting Amos Draw leases for the lottery.

We also found a need for better data exchange between various BLM offices. For example, geologists in the Lewistown (Montana) district office cited an instance when they were unable to update KGSs because they did not receive current well completion data

prior to a KGS updating deadline. Consequently, some KGSs were not expanded or revised to include all producing lands. According to the Lewistown District Geologist, this delay was due to a communication error between the district office and the resource area office.

The BLM headquarters Associate Director also recognized that a communication problem existed across state borders, which could be significant if a KGS in one state extends into an adjacent state. To correct the problem, in April 1984, BLM headquarters directed that its state offices establish agreements with adjacent BLM state offices to share information on well discoveries, production, and KGS determinations within 5 miles of their mutual state boundaries. The BLM offices in Colorado, Idaho, Utah, and Wyoming are now negotiating informal agreements to share this information.

Furthermore, the BLM district offices in Utah and Wyoming are forwarding all of their KGS actions to technical reviewers who examine the standards and justification used by district geologists to make KGS determinations. State officials believe this procedure will contribute to better communication between the state and district offices.

EXTENT OF QUESTIONABLE NONCOMPETITIVE LEASE ISSUANCES

We were asked to determine the extent of questionable lease issuances, such as occurred at Amos Draw, and their financial implications. We were specifically asked the following:

--"How many leases are known, or thought, to have been issued non-competitively that should have been issued competitively? What is the acreage and production from each? How many leases were reassigned, at what value and to whom? How long has this situation gone undetected? (Committee question 7.)

--"What is the projected monetary effect on the Federal Treasury and each of the states or other interested parties, if the procedures have resulted in lands containing Known Geological Structures being leased on a non-competitive basis? (Committee question 2.)

--"What other states are involved besides Wyoming--in particular, other major western oil and gas producing states, such as Montana, Colorado, Utah, New Mexico, Alaska, California as well as Florida, Arkansas and Texas?" (Committee question 8.)[1]

OVERVIEW

While difficult to measure, on the basis of our sample results and because of the way industry operates and the way KGSs are established, the frequency of issuing valuable KGS lands noncompetitively seems slight. A KGS will not be established until after drilling has occurred, and it is normal industry practice not to drill until mineral rights have been obtained for the area likely to be affected by the drilling. Thus, drilling will not likely take place until after the affected land has already been appropriately leased noncompetitively. The two notable exceptions where this did not happen involved areas where tracts of land were not available for lease for an extended period of time while development was occurring nearby--(1) the Amos Draw area in Wyoming, where expired leases were withheld for several years pending environmental studies, and (2) Fort Chaffee, Arkansas, where military lands had long been withheld from leasing.

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[1]As agreed with the Committee, our review was limited primarily to the states of Colorado, Montana, New Mexico, Utah, and Wyoming.

The overall monetary impact 27 the questionable lease issuances, including the cost of Interior's corrective action, is also difficult to measure. It appears, however, that in the recent Amos draw case in Wyoming, a competitive sale could have realized substantially more revenues--in this case, at least $13 million more on the 4 of the 14 leases where resale values could be identified. Our sample identified four more such leases--two in Montana and one each in Colorado and Utah. We could not determine the market value--and therefore the likely displaced federal revenues--of these four additional leases, but it may not be substantial since no production has taken place on them to date, even though three of the four leases were issued between February 1975 and May 1977.

MAGNITUDE OF QUESTIONABLE LEASE ISSUANCES

To address the frequency of questionable lease issuances, we examined the Amos Draw leases and also reviewed 166 randomly selected leases in the states of Wyoming, Montana, New Mexico, Montana, and Colorado--the five major federal oil and gas states. Of the 166 noncompetitive leases reviewed, we have reason to question only four. In addition, there were 14 such leases in the Amos Draw area.

The low incidence of questionable lease issuance identified in our sample seems to be more a result of industry operating practice than of government effectiveness. Industry practice is to lease a large area of land prior to any drilling. This means industry normally obtains noncompetitive leases on federal lands prior to any possible production which would trigger a KGS determination and competitive leasing. It also tends to substantiate the observation of one Casper BLM District geologist that making KGS determinations provides "busy work" for government geologists.

We believe that situations such as Amos Draw and Fort Chaffee occurred primarily because the federal lands were not available to industry for long periods of time while surrounding areas were being developed. In the case of Amos Draw, a large area of federal land had been withheld from leasing since 1974 pending the results of an environmental assessment study. Any lease that expired from September 1974 through January 1983 was put in suspense rather than following the normal practice of reoffering it in the lottery. Similarly, in the case of Fort Chaffee, military lands were not opened to oil and gas leasing until 1976, long after lands surrounding the fort had proven oil and gas reserves. We believe that had these lands been available for leasing before oil and gas development was occurring in the area, they probably would have been under lease prior to any KGS determinations.

The following are the results of our sample, which is not statistically projectible because of the limited number reviewed:

State	Actual leases reviewed	Questionable leases issued	Date issued
Colorado	28	1	Feb. 1, 1975
Montana	27	2	April 1, 1977 and Sept. 1, 1983
New Mexico	43	0	
Utah	35	1	May 1, 1977
Wyoming	33	0	
Total	166	4	

We were unable to determine why the three sample leases awarded in 1975 and 1977 were issued noncompetitively because the geologists who clearlisted them for the lottery are no longer with BLM. According to BLM geologists whom we interviewed, these leases would have been included in KGSs, if current procedures had been used when the leases were originally issued.

The 1983 lease was clearlisted and issued under procedures in effect prior to the lottery suspension. The leased land was adjacent to a KGS, gas wells were within 1 mile of the lease, and according to a BLM geologist, BLM would not have leased the land noncompetitively using current KGS procedures.

In addition to our lease sample, we reviewed the Amos Draw leases that precipitated the lottery suspension. We found that BLM issued 14 noncompetitive leases in July, August, and September 1983 which were later (Nov. 23, 1983) included in an expanded KGS.

Acreage for the four sample leases that were questionably issued--none of which are producing oil and gas--ranges from 55 to 1,246 acres. The 14 Amos Draw leases range from 160 to 2,357 acres, and as of July 1984 only 2 had producing wells located on them. Acreage and production quantities, where known, are shown below.

Questionable Leases

GAO Sample Leases

Lease number	Lease date	Acreage	Lease production
COC 22293	Feb. 1, 1975	160	None
UT 36632	May 1, 1977	80	None
MT 31191	April 1, 1975	55	None
MT 58164	Sept. 1, 1983	1,246	None

Amos Draw Leases

W- 84915	Sept. 1, 1983	1,132	None
W- 84916	July 1, 1983	320	None
W- 84917	Aug. 1, 1983	947	None
W- 84918	Aug. 1, 1983	520	None
W- 84919	Sept. 1, 1983	360	None
W- 84920	Aug. 1, 1983	1,384	Yes[a]
W- 84921	Aug. 1, 1983	160	None
W- 84932	Aug. 1, 1983	2,357	None
W- 84933	July 1, 1983	1,394	None
W- 84935	July 1, 1983	720	None
W- 84936	Sept. 1, 1983	480	Yes[b]
W- 84937	July 1, 1983	277	None
W- 84938	Pending	320	None
W- 84939	July 1, 1983	640	None

[a]July 1984 production was 3,536 barrels per day.

[b]Production began in July 1984; however, BLM had not received any production reports at the conclusion of our work in Wyoming.

Source: Bureau of Land Management.

FINANCIAL IMPACT

The potential monetary impact on the Treasury, states, and private parties of leasing lands competitively rather than noncompetitively depends upon differences in

--the revenues generated from bonus bids versus filing fees,

--royalty rates, and

--rental rates and lease terms.

Because of the difficulty in obtaining information on the leases' resale values, we were unable to project a direct monetary

effect. Although our work suggests that the frequency of improper lease issuance is probably slight, the monetary impact can be significant, as evidenced by the questionable Amos Draw leases.

Suspending the lottery system as a result of the Amos Draw controversy has also created indirect monetary effects on the Treasury. Specific effects are filing fees and rental revenues that were lost or deferred from leases not being issued during the suspension and the resulting decreased participation after the suspension. These are discussed below.

Revenues from bonus bids and filing fees

When a tract of land is leased competitively, the applicant who makes the highest bonus bid is awarded the lease and the government receives the bonus revenue. This revenue is then shared equally with the state in which the land is located. When a lease is issued noncompetitively, on the other hand, all individuals who apply for the lease pay the government a nonreturnable filing fee (currently $75) regardless of who is awarded the lease. These fees are not shared with states.

In 1983 the government collected $25.4 million in bonuses from competitive sales on 503 leases and $63.7 million in filing fees from the noncompetitive leasing of 9,348 parcels. (Filing fee receipts dropped $38.9 million below those collected in 1982, partly because BLM suspended the lottery in October 1983.) In 1983 bonus and advance rental revenues on competitive leases averaged $122 per acre, whereas revenue from noncompetitive leases averaged $3.77 per acre. The comparison of these figures is probably not meaningful, however, because of a disparity in knowledge of the geology and potential production of areas designated for competitive versus noncompetitive leasing. Which leasing method generates the most revenues is uncertain and can vary, as shown in the following examples.

Amos Draw and GAO sample

In the case of Amos Draw, the government collected $1.14 million from filing fees on the 14 leases. Because only 4 of the 14 lottery winners would provide information to Interior officials on the amount they received for their leases, we are only able to compare filing fee revenues and potential competitive bonus revenues for those four leases. As shown below, the filing fees for the four leases were substantially less than the amounts for which the initial lessees were able to sell the leases.

Comparison of Federal Lottery Receipts to Lease Resale Value at Amos Draw

Lease number	Filing fee receipts	Value received from assignee	Assignee
W- 84915	-	Unknown	Aminoil Inc., Englewood, CO
W- 84916	-	Unknown	Davis Oil Co., Denver, CO
W- 89417	-	Unknown	Davis Oil Co., Denver, CO
W- 84918	-	Unknown	Davis Oil Co., Denver, CO
W- 84919	$ 34,425	$ 135,000	Davis Oil Co., Denver, CO
W- 84920	-	Unknown	Amoco Oil Co. Sun Exploration and Production Co. Sequro Oil and Gas Co.
W- 84921	-	Unknown	Amoco Oil Co. Sun Exploration and Production Co. Sequro Oil and Gas Co.
W- 84932	$ 86,525	$ 7,700,000	Aminoil Inc., Englewood, CO
W- 84933	-	Unknown	Davis Oil Co., Denver, CO
W- 84935	-	Unknown	Davis Oil Co., Denver, CO
W- 84936	$102,000	$ 5,760,000	Aminoil Inc., Englewood, CO
W- 84937	$ 24,000	$ 138,355	Inca Oil and Gas Co., Denver, CO
W- 84938	-	Unknown	Davis Oil Co., Denver, CO
W- 84939	-	Unknown	Exxon Corp., Houston, TX
Total	$347,250	$13,633,355	

Source: Department of the Interior.

For the four questionably issued leases in our sample, we were unable to determine their resale value, but none of the four are producing, and one was not assigned at all. So presumably their value may not be too high. The four leases average 385 acres each.

Wyoming Overthrust Belt

In addition to our sample, we also selectively examined Wyoming's Overthrust Belt, where there also is high competitive interest. We compared revenues received by the state of Wyoming for certain competitive lease sales it held in the overthrust belt in 1983 and 1984 with 30 leases BLM offered noncompetitively in the same townships as Wyoming's competitive leases. In 16 cases filing fee receipts exceeded bonus revenues for nearby competitive offerings on a per-acre basis; in 14 cases the reverse was true. The filing fee receipts from 16 of the 30 BLM noncompetitive

leases exceeded by $562,189[2] the projected bonus revenue if BLM had issued these leases competitively. In contrast, the filing fee revenue for the other 14 noncompetitive leases was $686,967 less than the projected bonus revenue the government would have received if BLM had issued these leases competitively. It also should be noted that lands could be in the same township and still be of markedly different values to industry, but it does provide some possible basis for comparison.

In addition to state lands, we compared some BLM lottery leases with BLM competitive leases in the overthrust belt. We found two instances in which BLM issued lottery leases during 1983 in the same townships where it issued leases competitively during 1984. The filing fee revenue for one lease was $24,300, whereas the projected bonus revenue if BLM had issued the lease competitively was $6.9 million. For the other lease, the filing fee revenue was $12,573 and the projected competitively leased bonus revenue would have been $96,000.

Wyoming statewide

Although there could be several other influencing factors involved, the experience of the state of Wyoming in converting to an all-competitive leasing system does leave it uncertain as to whether a competitive system will produce more or less revenue than a noncompetitive system. Before June 1983, the state of Wyoming issued oil and gas leases on the basis of a noncompetitive (lottery-type) leasing system. According to state officials, most noncompetitive lease winners were nonresidents who did not actively drill wells, had little knowledge of the oil industry and, in some cases, would not sell leases or support oil and gas exploration, presumably because they were awaiting a better offer. Because these factors could affect production and royalty revenues, state officials decided to change to an all-competitive leasing system.

Under the lottery system, Wyoming leased 180,430 acres noncompetitively during the first 6 months of 1983 for an average price per acre of $28.86. (This figure represents the filing fees received divided by the number of acres leased noncompetitively.) After converting to an all-competitive system, for the period August 1983 through January 1984, Wyoming leased 387,421 acres in five lease sales and received an average price per acre of $26.29. (This figure represents the bonus revenue divided by the number of acres leased competitively.)

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[2]This figure, which is based on the price per acre Wyoming received for competitive leases in the same township and range as BLM's noncompetitive leases, is the product of Wyoming's price per acre and the number of acres BLM leased.

Revenues from royalties

An oil and gas royalty is the amount of money a lessee is obligated to pay the land owner (i.e., the federal or state government or private owner) for the oil and/or gas extracted. The federal government shares royalty revenues from oil and gas leases located on federal lands equally with the states and counties involved.[3] The federal royalty rate depends on how the lease was issued, as shown below.

Type of lease	Customary federal royalty rate
Noncompetitive	12-1/2% of the value of oil or gas produced.
Competitive	12-1/2% to 25% of the value of oil produced and 12-1/2% or 16 2/3% on the value of gas produced, on the basis of production per well per day for the month.

As indicated earlier, none of the four questionable leases in our sample had begun producing; there are, however, two such leases at Amos Draw, as discussed below.

Amos Draw

In the case of Amos Draw, the royalties from the producing wells would have been greater had BLM issued the 14 leases competitively. To compute the differences in projected royalty revenues, information is needed on the sales value of petroleum produced, royalty rates, and the actual sales from producing wells. The reported production capability of wells in the area that are currently producing on these leases is 1.2 to 2 million cubic feet of gas per day and 150 to 200 barrels of condensate (a liquid by-product of gas) per day. Because both the competitive and noncompetitive royalty rates for gas production under 5 million cubic feet per day are 12-1/2 percent, the federal government should not lose revenue from leases that produce gas only. However, the royalty rate for condensate varies. For example, the royalty rate for competitive lease sales of 150 to 200 barrels a day is 20 percent, whereas the noncompetitive rate is only 12-1/2 percent. The following table compares the royalty revenues per well for both leasing methods.

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[3]In the case of Alaska, the state government receives 90 percent of the royalties received from leases on federal lands.

Comparison of Annual Royalty Revenues
Based on Competitive and Noncompetitive Rates'
Annual Revenue per Well[a]

Type of lease	150 barrels per day	200 barrels per day
Competitive (at 20% royalty rate)	$324,667	$432,890
Noncompetitive (at 12-1/2% royalty rate)	202,917	270,556
Difference per well	$121,750	$162,334

[a]Based on a price per barrel of $29.65 in the Amos Draw area.

Currently, only three wells are producing; however, as more wells begin production, the difference in royalty revenues resulting from BLM's issuing the leases noncompetitively could be significant.

Rental rates and lease terms

Competitive leases run for 5 years at a rental of $2 per acre per year. Rents for 10-year noncompetitive lottery leases are $1 per acre per year for the first 5 years and $3 per acre per year for years 6 through 10. Thus, if a noncompetitive lottery lease is held for the full 10 years, the government would receive the same average revenue--$2/acre/year as under competitive leasing.

Since October 1983 BLM has expanded its KGSs by over 4 million acres. Some of this land has probably been leased at $1 an acre. However, this acreage includes both federal and nonfederal lands, and much of the federal land may have been appropriately leased noncompetitively. According to BLM regulations, the rental on an over-the-counter lease--but not a lottery lease--increases to $2 an acre if later determined to be in a KGS, but without knowing the acreage involved, we cannot project the dollar effect.

Because 14 leases in the Amos Draw area were questionably issued, rental on these lands may have been understated by $1 an acre per year. There were 11,012 acres noncompetitively leased that were later included in a KGS. However, once these lands become productive and begin paying royalties in lieu of rentals, any potential lost rental revenues become moot.

Monetary effect of the 1983 lease suspension and changes in leasing procedures

In addition because BLM suspended the lottery, the government did not receive revenue that it might have received had the suspension not occurred. From November 1983 to July 1984, BLM did not hold five regularly scheduled lease drawings. On the basis of five lease drawings held during 1983, we estimate that $63.7 million in filing fees and $11.7 million in rental revenue were lost or deferred because the lease drawings were suspended.

Finally, BLM has made another change to the lottery leasing system that will also have a monetary effect on the Treasury. BLM now collects and deposits from each applicant the first year's rental as well as the filing fee for each parcel applied for (discussed in more detail in appendix VI). Interior officials estimated that this change--that is, requiring the applicant to cover the potential rental for every lease applied for--would cause lottery speculator participation to decline by 40 percent and that filing fee revenue would decrease by $24.6 million. To partially offset this revenue loss, the Treasury will benefit from approximately 3 months interest it receives on the first year's rent before refunding the nonwinners' rental. Interior officials estimated that this advance rental float would be $13.5 million per year.

SPECULATION AND FRAUD IN THE LOTTERY

We were asked to assess the influence that the lottery has on speculation and fraud:

> "Has the failure of the system brought about speculation in federal oil and gas non-competitive leasing? If so, who has benefited? (Committee question 4.)
>
> "Have the system's procedures for delineating non-competitive leases been so inadequate that cancellation of at least some leases should be considered? Is there any evidence of fraud? If so, what are the circumstances and who may be involved?" (Committee question 5.)

OVERVIEW

There is no indication that Interior's leasing and KGS procedures led to increased speculation. The system itself, whether operating properly or not, inherently invites speculator participation. Questionable offering of valuable leases, as in the case of Amos Draw, would presumably increase the amount of speculation in the system but, as discussed in appendix V, this does not appear to happen very often. And, in any event, BLM has since taken steps that are reducing participation in the lottery by speculators.

We also identified no instances of fraud, although Interior's IG is continuing with some investigations into the lottery.

SPECULATION

Federal lease provisions provide for the private individual to speculate in the oil and gas leasing system, although recent filing fee increases and advance rental charges instituted in 1984 were intended in part to discourage speculator participation. Our past work[1] indicates that some officials from both industry and government endorse the right of all citizens to apply for oil and gas leases on the grounds that the wealth of the public lands should be equally available to the public. According to Section 1 of the Mineral Leasing Act, deposits of oil and gas ". . . shall be subject to disposition . . . to citizens of the United States, or to association of such citizens, or to any corporation organized under the laws of the United States . . . or

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[1]Are Leaseholders Adequately Exploring for Oil and Gas on Federal Lands? (GAO/EMD-82-82, Aug. 23, 1982).

. . . to municipalities". Hence, no connection or association to the oil and gas industry is required of any lessee. Financial responsibility or drilling capability is also not a prerequisite to holding a federal lease.

Who are the individual speculators?

"Individual speculator" is a term often applied to federal noncompetitive lease applicants who do not contribute to exploration and development. Not all individuals meet this definition, and speculators are thus rather hard to identify and categorize. Some individuals are connected to the oil and gas industry, such as an oil and gas employee or relative, and some are land-brokers or service firms that can make a positive contribution by finding and obtaining unleased land or perhaps by doing some seismic work to convince industry that an area warrants exploration.

Filing or advisory service firms

According to Interior, some firms not associated with the oil and gas industry or the U.S. government often aggressively solicit applicants with promises of "quick riches" from leasing prospectively valuable federal lands, sometimes allegedly engaging in deceptive and illegal practices. Interior is aware that not all filing services are involved in such activities. A number of legitimate services do exist that assess the available tracts and make recommendations as to their desirability. Filing service abuse, however, has become of such concern that some lawmakers and enforcement officials across the country are actively investigating them and also calling for abolishment of the lottery.

Effects of speculation

The main concerns about the presence of the individual speculator in the simultaneous system seem to be that

--speculators are often viewed as an impediment to industry and timely oil and gas development;

--filing services possibly mislead people into spending their personal savings to speculate on generally worthless oil and gas holdings; and

--for a rather nominal investment, speculators often receive considerable revenues that should more properly be going to the federal and state governments.

Speculators as an impediment to oil and gas development

Critics cite the individual speculator as an impediment to oil and gas exploration. While the speculator may cause some delay in drilling a particular area and may add to industry's cost by selling the lease to industry at a profit and collecting overriding royalties,[2] our past work (see footnote, p. 53) indicates that the speculator is not a major impediment to development. At most, it can generally be said that speculators delay, rather than prevent, development. In some cases it has been noted that speculators play a favorable role in the development of leases. For example, in the same report referred to above, we found that individual speculators may actually aid exploration and development by keeping land leased and more readily available for industry than unleased land.

Filing services dominate role in lottery participation

Individual speculation is certainly a dominant part of the lottery activity, and much of it takes place through filing services. During fiscal year 1983, over 50 percent of lottery filings came from filing service initiatives. The following summary demonstrates the prominent role played by filing services in the five major federal oil- and gas-producing states and nationwide.

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[2]A portion of the revenue collected on any future production.

Summary of Participation in Lottery During 1983

	Total filings received	Number of filings from filing services	Percent of filings from filing services
U.S. total	932,726	474,144	50.8
Selected states			
Colorado	74,580	32,785	44.0
Montana	50,665	72,104	43.6
New Mexico	139,336	62,440	44.8
Utah	52,155	22,126	42.4
Wyoming	590,297	326,943	55.4
Totals for 5 states	907,033	466,398	51.4

The Secretary of the State of Wyoming, along with others, has recognized that many of the individuals who file in the noncompetitive leasing program are totally ignorant of important factors underlying the drawings. For example, the Secretary of the State of Wyoming advised Interior that many participants are unaware that the land parcels in the lottery have been previously leased and that the leases were relinquished or allowed to expire, and blame BLM for these parcels being perpetually returned to the lottery program. On the other hand, however, our previously cited report indicates that most lottery leases are indeed acquired from the speculator by industry.

Speculator profits

The cost to apply for and hold a federal noncompetitive lease has been low enough to warrant speculation. Prior to October 1981 the lottery required only a $10 filing fee. Although it was raised to $25, the increased fee was not expected to have a significant impact on participation of private individuals in the leasing system. Effective February 19, 1982, Interior increased the filing fee to $75 and the annual rental for lottery leases from $1 per acre to $3 per acre after 5 years. This was expected to reduce speculation, and apparently has reduced it substantially.

With the exception of the Amos Draw and Fort Chaffee cases, it is difficult to determine how profitable the lottery is for a speculator. However, it is perhaps noteworthy that two of the primary criticisms of the lottery have been that the general public is (1) being misled into investing large sums of money for valueless oil and gas leases and (2) realizing large profits that more appropriately belong in the federal and state treasuries. While each allegation is undoubtedly true in specific instances, it would seem that, overall, both allegations cannot be true.

Impact of Interior's efforts to curb speculator and filing service involvement

Interior has recently made some regulatory changes to reduce speculation and encourage prompt industry exploration and development activity. The two most significant recent changes that have impacts on speculation have been the increase in the filing fee to $75 in early 1982 and the requirement of an advance rental payment in 1984, which reversed a steady rise in filing fee applications as shown on the following page.[3]

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[3]An applicant must now submit the first year's rental along with the application and nonrefundable filing fee.

Number of Filings in the
Simultaneous Oil and Gas Leasing Program

Calendar year	Number of filings	Revenues (millions)
1977	2,585,733	$25.9
1978	3,161,697	31.6
1979	3,634,566	36.3
1980[a]	2,228,902	22.3
1981[b]	4,665,369	55.7
1982[c]	1,739,436	102.6
1983[d]	849,180	63.7
1984[e]	67,128	5.0

[a]The noncompetitive oil and gas leasing program was suspended between February 29 and June 16, 1980.

[b]Filing fee increased to $25 (Nov. filing period).

[c]Filing fee increased to $75 (Mar. filing period).

[d]October suspension resulted in no November filing period.

[e]Advance rental implemented; lottery suspended most of year.

Source: Bureau of Land Management.

The principal objective of the advance rental was to reduce the number of applications filed by speculators, help curtail enticement of unwary citizens, and promote exploration. In February 1984 BLM projected the following as probable effects of the advance rental:

--No significant change in participation by oil and gas companies and serious investors; however, a 40-percent decrease in participation by individual and non-oil and gas companies filing independently.

--A 30 percent decline in total filings resulting in $24.6 million in lost filing fee revenue to the federal Treasury.

--No change in acreage leased.

--Advance rental float adding approximately $13.5 million to the federal Treasury.

--Total cost to all applicants from financing advance rental of $20.2 million.

--Gross cost of lost business to filing services of $55.1 million.

Although BLM experts anticipated a decline in total filings of up to 30 percent, results of the reinstated lottery showed a drop in filings of approximately 60 percent. BLM received an estimated 67,000 filings for 4,818 parcels in August 1984. This figure compares with a total of 183,038 filings received for 2,375 parcels in September 1983, the last drawing prior to instituting advance rentals. In addition, filing service activity has apparently dropped substantially; only 31.2 percent of filings came via filing services, compared with over 50 percent in fiscal year 1983.

There may also be a reduction in acreage leased. For example 1,088 parcels received no lease applications in the August 1984 drawing, as shown below:

State	Parcels offered	Parcels not applied for	Percent not applied for
Colorado	593	25	4
Montana	587	297	51
New Mexico	597	395	66
Utah	583	296	51
Wyoming	553	75	14
Total	2,913	1,088	37

A headquarters BLM analyst attributed the overall decrease in participation to the following factors:

--Recent enforcement decisions have shut down practices of certain filing services (loss of related clientele).

--Bad publicity about filing services has dampened public enthusiasm. (Good services are having a problem attracting participants.)

--The lottery program's requirement of payment of the first year's rental in advance has decreased participation.

--The price of oil is dropping, hence fewer people are interested in oil investment.

--The lottery's long moratorium has had a chilling effect; applicants are out of the habit of filing.

Who benefits from speculation?

Speculators

In the previously cited GAO report, we calculated that approximately 85 percent of all nonindustry lottery leases are eventually acquired by industry, although we do not know at what price. Presumably, though, the speculator who is awarded a lottery lease generally receives some benefit. However, the chances of winning are slight. For instance, in fiscal year 1983, BLM accepted 849,180 filings for 9,348 leases. This averages out to 91 filings per parcel.

Filing services

Many applicants use a "filing service" to select parcels. Exact fees vary from $40 to several thousand dollars (per filing) depending on the service. Prior to the lottery suspension and advance rental requirement, two-thirds of lottery applicants utilized filing services and provided 50 percent of the filings. Interior estimated that over $100 million was collected annually by filing service firms prior to the advance rental requirement. The Comptroller General of Florida, among others, has voiced serious criticism of the program because federal revenue is being generated at the expense of the unknowledgeable general public.

Federal Government

Speculators contribute millions of dollars annually to the federal Treasury. The five filing periods in calendar year 1983 contributed over $60 million in filing fees alone (versus over $100 million in calendar year 1982). As previously mentioned, participation in the lottery is attributed largely to filing service solicitation, but this is now declining.

Industry

We found little evidence to suggest that industry is hampered significantly by the lottery system in general or speculation in particular. Industry's position--documented in testimony[4] and in our discussions with them, particularly with smaller independents--has generally been that the present system is preferable to the commonly proposed all-competitive system.

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[4]Testimony before the House Subcommittee on Mining, Forest Management and the Bonneville Power Administration, Mar. 15, 1984, by A.A. Phillips, President, Independent Petroleum Association of Mountain States; also representing the Rocky Mountain Oil and Gas Association and the Independent Petroleum Association of America.

States

The one group that does not benefit from the lottery is the state governments, which do not share in filing fee receipts, but would share in bonus revenues if the lands were leased competitively.

FRAUD AND OTHER IMPROPRIETY

With respect to the question of whether cancellation of some leases should be considered, it is noted that the use of step-out procedures goes back at least 10 years at some locations. Thus, it would not be practical or perhaps even possible to reconstruct the data on the thousands of leases awarded during past periods in order to identify those leases which may have been improperly issued as noncompetitive leases.

Shortly after the lottery was suspended in October 1983, the Director of BLM announced in Instructional Memorandum 84-35 that it would not be appropriate to question the validity of noncompetitive leases awarded prior to the suspension. The Director stated that new guidelines for designating KGSs did not mean that prior KGS procedures were not in accordance with the intent of the Mineral Leasing Act of 1920. Rather,

> "Procedures for delineating KGS's have evolved over time and can be altered when the Director, exercising the Secretary's discretion under section 32 of the act to define the boundaries of structures and fields deems it necessary."

The Director's memorandum further explained that the new guidelines for delineation of KGSs were to be applied prospectively only. In other words, if lands in an existing noncompetitive lease were subsequently included in a KGS under the new guidelines, the validity of the lease will not be affected since those lands were not in a KGS when the lease was issued.

With respect to fraud and other abuse issues, we relied primarily on the work of the Department of the Interior's Office of Inspector General, which conducted an investigation of the leases issued at Amos Draw and has other investigations and audits in process. Also, we are aware, but did not review the results, of other investigations--either underway or not formally released--by the House Appropriations Committee, the U.S. Attorney's office in Wyoming, and various state governments.

A major aspect of Interior's IG investigation of Amos Draw leases was to determine if fraud was involved in the issuance of

leases. In performing their investigation, the IG staff interviewed 24 lease winners, and responsible BLM personnel. They also reviewed 114 BLM lease records pertaining to federal lands within the Amos Draw area. According to the project director, the IG staff found no evidence of fraud concerning 24 leases that were awarded during 1983. The only evidence of possible wrongdoing involved 18 leases issued between 1972 and 1980 that were won by or assigned to individuals or companies who were convicted in federal court on charges related to multiple filings on lottery parcels. This information was turned over to the U.S. Attorney in Wyoming.

The lottery program has long been associated with alleged speculator and unscrupulous filing service practices, and the IG in February 1985 still had some reviews in process examining possible additional questionable lease issuances, and management controls over the lottery process.

In this connection, although unrelated to improper lease issuance, the lottery system has been associated with allegations of unscrupulous filing service practices for many years. According to the North American Securities Administrators Association, thousands of consumers across the country have been contacted by telephone or through the mail by companies offering assistance to "instant profits" by entering the federal government's oil and gas lottery. Enforcement personnel in many states are also reviewing hundreds of complaints concerning unscrupulous filing or advisory service solicitation. Several states have begun to issue "cease and desist" orders against filing service companies on the grounds that securities are subject to registration requirements and antifraud provisions of state laws. For example, Florida issued 32 cease and desist orders against companies and individuals. In addition, Montana has issued over 30 such orders while North Dakota has issued approximately 38.

Interior's IG is cooperating with the Federal Bureau of Investigation, the Federal Trade Commission, and the Department of Justice to investigate and combat companies purported to be engaged in unscrupulous filing service practices. The IG office is conducting computerized analyses to target illegitimate filing services for criminal indictment. The Federal Trade Commission has completed successful actions against at least three lease filing service companies for false advertising practices. Each of the FTC actions involved millions of dollars accumulated from the general public.

OTHER CONSIDERATIONS

Reported lottery system deficiencies probably do not significantly enhance speculation. Despite revenues from increased participation in the lottery, Interior has become more wary of

pure speculator interest. BLM's Chief of the Fluid Minerals Leasing Division believes the new regulations will increase the opportunity for success of those participants whose main objective is the development of potential oil and gas resources. It will hopefully also reduce fraudulent filing service participation. The new rules' aim of reducing speculation may not have any major adverse effect on development, but it will reduce federal revenues. Secretary of the Interior Clark also noted in September 1984 that ". . . an all-competitive system would not assure that fraudulent practices would be eliminated."

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